

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number
WO 2004/000148 A2

(51) International Patent Classification⁷: A61B 18/00

(21) International Application Number:
PCT/IL2003/000534

(22) International Filing Date: 25 June 2003 (25.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/391,037 25 June 2002 (25.06.2002) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 119(E) of 60/391,037 (CIP)
Filed on 25 June 2002 (25.06.2002)

(72) Inventors; and

(75) Inventors/Applicants (for US only): PESACH, Benny [IL/IL]; 18 SHIR HASHIRIM STREET, 48072 ROSH-HA'AYIN (IL). BALBERG, Michal [IL/IL]; 19 NOF HARIM STREET, 96190 JERUSALEM (IL).

(74) Agents: FENSTER, Paul et al.; FENSTER & COMPANY, INTELLECTUAL PROPERTY 2002 LTD., P. O. BOX 10256, 49002 PETACH TIKVA (IL).

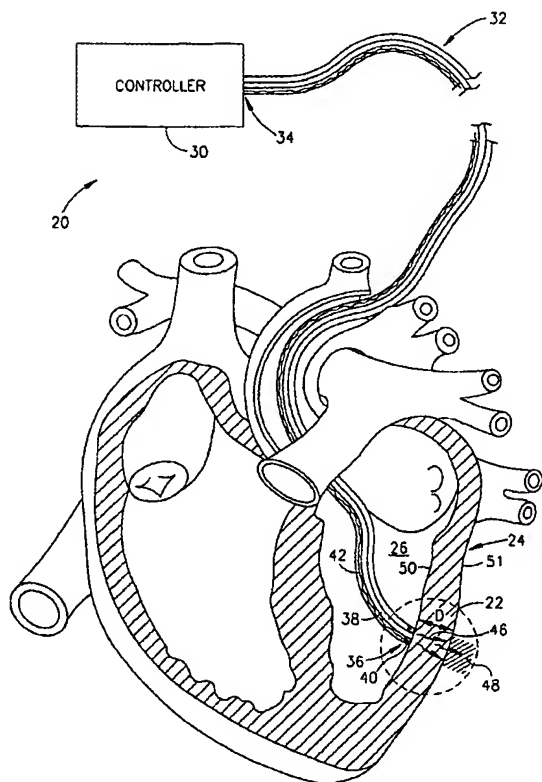
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (for all designated States except US): GLUCON INC. [US/US]; 1013 CENTRE ROAD, WILMINGTON, COUNTY OF NEW CASTLE, DE 19805 (US).

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PERFORMING MYOCARDIAL REVASCULARIZATION



(57) Abstract: Apparatus for forming a hole in a region of the heart muscle wall of a patient undergoing myocardial revascularization comprising: means for removing tissue from the region to form the hole; a light source that illuminates the region with light that generates photoacoustic waves therein; at least one acoustic sensor that generates signals responsive to the photoacoustic waves; and a controller that receives the signals and processes them to determine a characteristic of the region useable to control the means for removing tissue.

BEST AVAILABLE COPY

WO 2004/000148 A2